

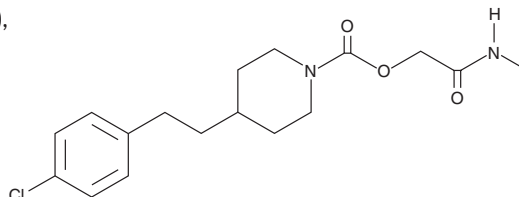
PRODUCT INFORMATION



SA 57

Item No. 14848

CAS Registry No.: 1346169-63-8
Formal Name: 4-[2-(4-chlorophenyl)ethyl]-1-piperidinecarboxylic acid-2-(methylamino), 2-oxoethyl ester
MF: C₁₇H₂₃ClN₂O₃
FW: 338.8
Purity: ≥98%
UV/Vis.: λ_{max}: 222 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SA 57 is supplied as a crystalline solid. A stock solution may be made by dissolving the SA 57 in the solvent of choice, which should be purged with an inert gas. SA 57 is soluble in organic solvents such as ethanol and DMSO. The solubility of SA 57 in these solvents is approximately 20 and 25 mM, respectively.

Description

SA 57 is an inhibitor of fatty acid amide hydrolase (FAAH; IC₅₀s = 1.9 and 3.2 nM for hFAAH and mFAAH, respectively), monoacylglycerol lipase (MAGL; IC₅₀s = 1,400 and 410 nM for hMAGL and mMAGL, respectively) and α/β-hydrolase domain-containing protein 6 (mABHD6; IC₅₀ = 850 nM).¹ *In vivo*, SA 57, at doses ≥1.25 mg/kg, selectively inactivates mFAAH and, at a dose of 12.5 mg/kg, inactivates mMAGL and mABHD6 resulting in a 10-fold increase in their substrates. Administration of SA 57 (5 mg/kg, i.p.) to morphine-dependent mice alleviates withdrawal signs without eliciting cannabimimetic side effects.²

References

1. Niphakis, M.J., Johnson, D.S., Ballard, T.E., *et al.* O-hydroxyacetamide carbamates as a highly potent and selective class of endocannabinoid hydrolase inhibitors. *ACS Chem Neurosci.* **3(5)**, 418-426 (2012).
2. Ramesh, D., Gamage, T.F., Vanuytsel, T., *et al.* Dual inhibition of endocannabinoid catabolic enzymes produces enhanced antiwithdrawal effects in morphine-dependent mice. *Neuropsychopharmacology* **38(6)**, 1039-1049 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/07/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM